

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

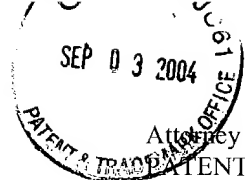
Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.



Attorney Docket No. 509/35644



23646

PATENT TRADEMARK OFFICE

41

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

SEP 03 2004

Applicant(s): Michael J. HAWTHORNE et al. Conf. No.: 8826  
Serial No.: 09/404,826 Art Unit: 2122  
Filed: September 24, 1999 Examiner: Kiss, Eric B.  
For: METHOD OF TRANSFERRING FILES AND ANALYSIS OF TRAIN  
OPERATIONAL DATA

SUBMISSION OF TRANSLATION OF PROTEST

RECEIVED

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

SEP 08 2004

Technology Center 2100

Sir:

As indicated in the Amendment filed August 31, 2004, enclosed is an English translation of the protest filed in the corresponding European patent. This is not a certified translation and is merely being provided as a courtesy to the examiner.

Respectfully submitted,

BARNES & THORNBURG LLP

Perry Palan  
Reg. No. 26,213

Enclosure



**Translation of the Statement of Opposition by SIEMENS  
Dated July 23, 2004**

We, Siemens Aktiengesellschaft, hereby lodge

**OPPOSITION**

against the above Patent.

**RECEIVED**  
SEP. 08 2004  
Technology Center 2100

The fee is paid by the enclosed voucher.

The opposition is based on the reasons given in Article 100(a) EPC, specifically in connection with Articles 54 and 55 PCT.

We request that the above Patent be revoked in total, i.e. with all claims 1 to 26, pursuant to Article 102(1) EPC.

As an auxiliary motion, we request oral proceedings in accordance with Article 116 EPC in case the preceding request is not totally granted in written proceedings.

The opposition is based on the following references:

- E1 JP 10-203369, of August 4, 1998, Toshiba Corporation, JP;
- E2 US 5,533,695, of July 9, 1996, Harmon Industries, Inc., US;
- E3 US 5,420,883, of May 30, 1995, Hughes Aircraft Company, US;
- E4 US 4,827,438, of May 2, 1989, Halliburton Company, US;
- E5 Tornsdorf Helmut and Manfred, Windows 98, Munich Vienna 1998

Two copies of each reference are enclosed in accordance with Rule 59 EPC.

**Reasons:**

The Patent under opposition relates to a method of transferring files and analysis of train operation, specifically the collection, transfer and analysis of real time

information between a train and remote stations, and the use of real time information on the train itself.

It was the object of the invention to transfer real time data between a train and remote stations, specifically to update the used data files, in order to base the train control on the most recent data, wherein the amount of data transferred should be as small as possible.

In accordance with the features of the main claim, which is in the one-part form, this object is met by a method of establishing a communication and transferring files between a computer on board a train and remote stations, wherein

- A) Event recorder data and/or train performance data and/or track data are collected in files of the on-board computer;
- B) a determination is made at the train whether a remote station is within range;
- C) A wireless communication is established between the on-board computer and the in-range remote station; and
- D) A determination is made which of the files are new since the last transfer;
- E) The new files are transferred to the in-range remote station.

The subject-matter of the Patent lacks novelty over reference E1.

E1 discloses a train control system wherein data are exchanged between the train and ground stations through wireless communication. To this end,

- A) Data are collected in a computer on board a train T, E1 disclosing  
[0018] that train control data and location or speed are  
recorded in the memory 24 of an on-board computer 2a-2c;
- B) A determination is made whether a ground station is within range, the data received by the on-board computer 2a-2c being evaluated to determine whether data can be exchanged with a ground station 1a-1c. More specifically, in accordance with E1,

[0026] incoming data are examined as to whether they contain a request (CALL message) for a data update from an in-range ground station. In addition, as the skilled reader will learn from paragraph [0021] of E1, the track data recorded in the on-board computer are evaluated and, on approaching a station, a request (REQ message) for data update is sent to the ground station now within range;

- C) Moreover, the reference discloses implicitly in such a manner that the skilled reader understands it from the context, that, on approaching an in-range ground station, e.g. on entering a railway station, a connection is established between the on-board computer 2a-2c and the ground station 1a-1c, since a communication between the radio station 22 on board the train and the radio station 12 of the ground station is required to transfer data by wireless communication, a permanent radio connection being excluded in the train control systems under consideration;
- D) A detection is made of those data which are new since the last transmission, E1 (paragraphs [0035 and 0036]) disclosing that the version numbers of files are compared prior to the transmission; and
- E) Only new files are transmitted.

It is therefore Opponent's opinion that all features of claim 1 of the Patent are anticipated by reference E1 in a novelty destroying manner.

Dependent claims 2 to 4 of the Patent relate to various modifications of the data update which are also anticipated by reference E1, paragraphs [0035] and [0036], so that it is with an average skill to determine whether the in-range remote station has updates to be transmitted and to transmit such updates to the on-board computer (dependent claim 2) or to compare the file versions in the remote station with those in the on-board computer (dependent claim 4). The same applies to the enumeration of kinds of files to be compared, as in dependent claim 3.

Dependent claim 5 of the Patent relates to a specific method of determining whether a remote station is within range. Transmitting a wireless query and monitoring the response is disclosed in reference E1, specifically paragraphs [0021], [0035] or [0036]. This embodiment thus lacks novelty. Reference E2, column 7, lines 6 to 20 describes how the on-board computer, by referring to

stored track data, determines whether a ground station is within range. This modification of the method thus lacks inventive activity.

Dependent claim 6 of the Patent claims the reception of the data transfer after an interruption of the communication. This does not exceed average skill.

Dependent claims 7 to 9 of the Patent relate to the transfer of files recorded on the train to a simulator and the processing and analysis of these data by the simulator. Such processes are described in US Patent 4,827,438, specifically column 3, lines 3 to 30. As a result, dependent claims 7 to 9 lack inventive activity in view of E4 in addition to being within average skill (dependent claim 8).

Dependent claims 10 to 13 of the Patent relate to the use of a central base station for co-ordinating a plurality of ground stations. Reference E2 (US 5,533,695), specifically column 2, lines 59 to 65, and column 5, lines 57 to 60, discloses the use of a central base station for co-ordinating ground stations and providing them with data necessary to monitor the trains. When new data are present in the central base station they are transmitted to the ground stations for update. Thus, the subject-matter of dependent claims 10 to 13 lacks inventive activity.

Similarly, the subject-matter of claims 14 and 15 is not inventive since it is obvious to the skilled person to perform a data adjustment between two or, optionally, all ground stations where no central base station is used.

Dependent claim 16 of the Patent describes a method in which track data are transferred from a ground station to the on-board computer and subsequently from the on-board computer to another ground station. Reference E3, US Patent 5,420,883, for example describes that the communication between ground station and train may be used to transfer detailed status information from the train to the ground station. Starting from reference E1, paragraphs [0035] and [0036], which describe that the most recent versions of files are transferred from ground stations to the trains for update, the skilled person will arrive, without exercising inventive activity, at the subject-matter of dependent claim 16 of the Patent, it being obvious that updates on track data received from the on-board computer in accordance with reference E3, column 3, lines 5 to 10, are transferred as an information to other ground stations.

Dependent claims 17 to 19 of the Patent relate to the use of track data for display on the train and to the correlation of such track data with train performance data. Such use is already disclosed in reference E2, column 10, line 23, to column 11, line 13, so that the subject-matter of dependent claims 17 to 19 lacks inventive activity.

Dependent claims 20 to 22 relate to obvious embodiments of the file transfer method. More specifically, it is claimed that the files to be transferred contain a call book of the remote stations (dependent claim 20), that software updates are transferred whenever new software versions are present in the central base station (dependent claim 21), and that the on-board computer files are used in the central base station for analysis, playback, report generation and archival (dependent claim 22). These embodiments are simply within average skill.

Similarly, the grouping of remote stations according to territorial boundaries or the like, as claimed in dependent claim 23, is not inventive. This is particularly suggested by E3, claim 6.

Dependent claims 24 to 26 are developments of dependent claim 23 with average skill and thus again lack inventive activity.

Reference E2 (US 5,533,695) further discloses an incremental railway control system including a method for establishing communication and transferring files between a computer on board a train and remote stations, wherein

- A) Data are collected in files of the on-board computer (column 6, lines 10 to 22);
- B) A determination is made at the train whether remote stations are within range, column 7, lines 5 to 20, describing that the on-board computer, by referring to stored track data, determines whether a ground station is within range;
- C) A wireless communication is established between the on-board computer and the in-range ground station (column 7, lines 8 et seq.); and

- E) Files are transferred between the on-board computer and the in-range remote station (column 4, lines 4 to 17).

Reference E2 does not explicitly disclose the only feature that newly formed files are determined since the last transfer. Moreover, it is obvious to a person of average skill in data communication that, specifically in the transfer of safety-relevant data, transfer capacities should not be overloaded by excessive amounts of data and only necessary data should be transferred, i.e. files already transferred should not be re-transmitted and only files newly formed since the last transfer should be transmitted. Thus, Feature D) of the Patent is implicitly disclosed in reference E2, so that the subject-matter of the Patent is not novel.

To evidence the fact that it is with an average skill to transfer for update not all available files but only those newly added or changed since the last transfer, reference is made to document E5, page 406.

The subject-matter of the Patent at least lacks inventive activity since the skilled person will combine references E1 and E2 relating to the field of train control and he will take the feature, which is not explicitly disclosed in E2, from paragraphs [0035] and [0036] of reference E1, thereby achieving the object of minimising the amount of data to be transferred between an on-board computer and remote stations.

For achieving the object of minimising the data to be transferred between a train and remote stations for a file update, the skilled person will also refer to literature dealing with updates of data files, data libraries and software versions, thereby coming across reference E5 (Tornsdorf Helmut and Manfred, Windows 98).

As a result, the features of claim 1 of the Patent lack inventive step in view of reference E2, considered in combination with reference E1 or reference E5.

Opponent additionally refers to document E3 which discloses a method of transferring data between a computer on board a train and remote stations (compare Figure 1 or column 3, lines 5 to 7), wherein

- A) Train performance data are collected in files of the on-board computer (compare column 7, lines 6 to 16);



- B) A determination is made whether a remote station is within range (compare column 7, lines 1 to 5);
- C) A wireless communication is established between the on-board computer and the in-range remote station (compare column 4, line 64, to column 5, line 2); and
- E) Files are transferred to the remote station (compare column 13, lines 4 to 13).

Reference E3 thus discloses all features of claim 1 of the Patent except Feature D, i.e. the determination of those data which are new since the last transfer. With respect to this feature, which the skilled reader will understand from the context, the combination of reference E3 with reference E1 or E5 leading to all features of claim 1 of the Patent in an obvious manner.

Thus, claim 1 of the Patent is anticipated also by E3 in a novelty destroying manner. At any rate, the subject-matter of claim 1 of the Patent lacks inventive activity in view of reference E3 considered in combination with reference E1 or reference E5, each of these documents disclosing features which in combination could not but lead the skilled person to the subject-matter of claim 1.

The features of claims 2 to 26 are likewise obvious from combinations of the references. To avoid repetitions, references made to the above arguments.

In summary, the features of the Patent are neither novel nor inventive. Our request to revoke the Patent for lack of novelty and inventive step is thus justified.

SIEMENS AKTIENGESELLSCHAFT  
signed by Menkel